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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/152,008	09/11/1998	SIG H. BADT JR.	ALCA1100-6	8622

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MCI, INC  
TECHNOLOGY LAW DEPARTMENT  
1133 19TH STREET NW, 10TH FLOOR  
WASHINGTON, DC 20036

EXAMINER

HARPER, KEVIN C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 07/14/2004

31

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/152,008

Applicant(s)

BADT, SIG H.

Examiner

Kevin C. Harper

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8-11,13-15,17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8-11,13-15,17 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 29.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Response to Arguments***

The indicated allowability of claims 6, 8, 10-11, 13-15, 17-18 is withdrawn under further consideration of Shah et al. (US 5,646,936) and Baniewicz et al. (US 6,507,561).

1. Applicant's arguments filed May 3, 2004, have been fully considered but they are not persuasive. In amending claim 1, applicant noted that the limitations of claim 10 had been amended therein. However, the amended limitation is similar to other limitations already found in claim 1 and does not include all the limitations of claim 9 and 10 as noted in the previous office action under allowable subject matter.

***Claim Rejections - 35 USC § 103***

Claims 1 and 4-6, 8, 10-11, 13-15 and 17-18 are rejected under 35 U.S.C. 103(a) as being obvious over Shah et al. (US 5,646,936) in view of Shiragaki (US 5,457,556) and Brady (US 6,041,049).

2. Regarding claims 1, 5-6, 8, 10-11, 13-15 and 17-18, Shah discloses a method of real-time or continuous mapping a topology of spare capacity (Figure 5; col. 5, lines 66-67; col. 6, lines 17-20 and 31-33) of a DRA-based network. The method comprises the steps of outputting a keep alive message on a spare link (Figure 9, step 806) from one node to another concerning the spare link (Figure 8) and storing as a topology map the identities of all nodes and spare links interconnecting the nodes (Figures 2 and 5). The keep alive messages (Figure 8) include a first field identifying the node that sent the message (Figure 8, item 703; Figure 10A, step 902 and 930-950), a third field set to a specific value when the node is a custodial node (Figure 8, item 701; col. 3, lines 39-45) and a fourth field identifying the message as a keep alive message (item 701 and 707; col. 6, line 63 through col. 7, line 7; col. 7, lines 10-19). However, Shah does not disclose identifying the port

numbers. Shiragaki discloses a switch having port numbers identifying connections to different working paths and spare paths (col. 6, lines 10-16). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to identify the spare capacity by port number in the invention of Shah in order to distinguish one of several exit paths from a switch. Further, Shah in view of Shiragaki does not disclose storing the network topology information in one location nor providing the generated topology to an origin node. Brady discloses transmitting topology information stored in one location to an origin node (Figure 1; Figure 5, step 24; col. 2, lines 48-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide spare capacity information to an origin node in the invention of Shah in view of Shiragaki in order to provide a node with the available spare capacity of the network to aid in routing.

3. Regarding claim 4, in Shah the custodial nodes determine an alternate route using network spare topology (col. 3, lines 20-33, 38-49 and 61-67).

Claim 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah in view of Shiragaki and Brady, as applied to claim 1 above, and further in view of Pekarske (US 5,146,452).

4. Regarding claims 3 and 9, in Shah the custodial nodes determine an alternate route using network spare topology (col. 3, lines 20-33, 38-49 and 61-67). However, Shah in view of Shiragaki and Brady does not disclose a node transmitting a custodial message via a functional spare link. Pekarske discloses transmitting a message from a node to indicate that it brackets a failed link in order to notify the other nodes of a failure in the network (col. 1, lines 56-65). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a custodial message in the invention of Shah in view of Shiragaki and Brady to aid in optimal routing after a network fault.

***Conclusion***


5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Schroeder et al. (US 5,088,091) discloses transmitting keep alive messages between nodes every few seconds to determine if a link is available (col. 37, lines 5-17).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139. The examiner can normally be reached weekdays from 11:30 AM to 8:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 703-308-5463. The centralized fax number for the Patent Office is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only (applications must be associated with a customer number). For more information about the PAIR system, see [pair.uspto.gov](http://pair.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin C. Harper



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July 4, 2004